

REMARKS

The Examiner indicated that the listing of claims in the Response to Office Action filed on September 22, 2005 does not include the text of all pending claims because claims 26 and 27 does not have all the text present. The listing of the claims in the Response to Office Action has been corrected to include the dependency of claims 26 and 27. Therefore, the amendments to the claims are now in compliance. The Corrected Response to Office Action is attached hereto.

Date: November 3, 2005

Respectfully submitted,



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In re application of: **Hickson et al.**§
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Group Art Unit: 2194

Serial No.: 10/087,963

Examiner: **Nguyen, Van H.**Filed: **February 27, 2002**Attorney Docket No.: **GB920010047US1**For: **Method of Logging Message
Activity**

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on November 3, 2005.

By:


Stephanie Fay**CORRECTED RESPONSE TO OFFICE ACTION**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

No fees are believed to be required. If, however, any fees are required, I authorize the Commissioner to charge these fees which may be required to IBM Corporation Deposit Account No. 09-0447. No extension of time is believed to be necessary. If, however, an extension of time is required, the extension is requested, and I authorize the Commissioner to charge any fees for this extension to IBM Corporation Deposit Account No. 09-0447.

In response to the Office Action dated June 29, 2005, please amend the above-identified application as follows:

Listing of Claims begins on page 2 of this paper.

Remarks begin on page 7 of this paper.

IN THE CLAIMS:

1. (Currently amended) A computer implemented method for recording message activity in a log, the method comprising the steps of:
receiving a request from an application to put a message, comprising message data, to a queue; and
detecting whether there is a previous occurrence of the message data in the log, and if there is not a previous occurrence writing a log record including the message data, but if there is a previous occurrence writing a log record including a reference for locating the previous occurrence of the message data in the log, wherein the reference for locating the previous occurrence of the message data in the log enables the position of the log record containing the message data to be obtained.
2. (Original) A method as claimed in claim 1 wherein the request to put a message includes an indication that the message data was put to a message queue or got from a message queue in a previous request from the application.
3. (Original) A method as claimed in claim 2 wherein the indication is a value which indicates that the message data was involved in the immediately preceding request from the application.
4. (Original) A method as claimed in claim 2 wherein the indication is a token which uniquely identifies the message data within the scope of the application.
5. (Original) A method as claimed in claim 1 further comprising the steps:
receiving a request from the application to get a message, comprising message data, from a queue; and
storing a reference, separate from the log and associated with the application, for locating a previous occurrence of the message data in the log.
6. (Original) A method as claimed in claim 1 wherein if the detecting step detects that there is not a previous occurrence of the message data in the log it further stores a reference, separate

from the log and associated with the message, for subsequently locating the message data in the log.

7. (Currently amended) A computer implemented method for detecting the re-use of message data comprising the steps:

receiving a request from an application to put a message, comprising message data, to a queue; and

detecting, based on an indicator included with the request, that the message data was previously put to a message queue or got from a message queue by the application.

8. (Original) A method as claimed in claim 7 wherein the indicator is a value which indicates that the message data was involved in the immediately preceding request from the application.

9. (Original) A method as claimed in claim 7 wherein the indicator is a token which uniquely identifies the message data within the scope of the application.

10. (Currently amended) A computer program product, recorded on a medium, comprising instructions which, when executed on a data processing host, causes said host to carry out a method comprising the steps:

receiving a request from an application to put a message, comprising message data, to a queue; and

detecting whether there is a previous occurrence of the message data in [[the]] a log, and if there is not a previous occurrence, writing a log record including the message data, but if there is a previous occurrence writing a log record including a reference for locating the previous occurrence of the message data in the log, wherein the reference for locating the previous occurrence of the message in the log enables the position of the log record containing the message data to be obtained.

11. (Original) A computer program product as claimed in claim 10 wherein the request to put a message includes an indication that the message data was put to a message queue or got from a message queue in a previous request from the application.

12. (Original) A computer program product as claimed in claim 11 wherein the indication is a value which indicates that the message data was involved in the immediately preceding request from the application.

13. (Original) A computer program product as claimed in claim 11 wherein the indication is a token which uniquely identifies the message data within the scope of the application.

14. (Original) A computer program product as claimed in claim 10 further comprising the steps:

receiving a request from the application to get a message, comprising message data, from a queue; and

storing a reference, separate from the log and associated with the application, for locating a previous occurrence of the message data in the log.

15. (Original) A computer program product as claimed in claim 10 wherein if the detecting step detects that there is not a previous occurrence of the message data in the log it further stores a reference, separate from the log and associated with the message, for subsequently locating the message data in the log.

16. (Original) A computer program product, recorded on a medium, comprising instructions which, when executed on a data processing host, causes said host to carry out a method comprising the steps:

receiving a request from an application to put a message, comprising message data, to a queue; and

detecting, based on an indicator included with the request, that the message data was previously put to a message queue or got from a message queue by the application.

17. (Original) A computer program product as claimed in claim 16 wherein the indicator is a value which indicates that the message data was involved in the immediately preceding request from the application.

18. (Original) A computer program product as claimed in claim 16 wherein the indicator is a token which uniquely identifies the message data within the scope of the application.

19. (Currently amended) A data processing apparatus comprising:
a non-volatile memory storage device for storing log records thereon in a log comprising one or more log files;
a volatile memory storage device;
means for receiving a request from an application to put a message, comprising message data, to a queue;
means for detecting whether there is a previous occurrence of the message data in the log;
means responsive to failing to detect a previous occurrence of the data in the log for writing a log record including the message data; and
means responsive to detecting a previous occurrence of the data in the log for writing a log record including a reference for locating the previous occurrence of the message data in the log, wherein the reference for locating the previous occurrence of the message data in the log enables the position of the log record containing the message data to be obtained.

20. (Original) An apparatus as claimed in claim 19 wherein the request to put a message includes an indication that the message data was put to a message queue or got from a message queue in a previous request from the application.

21. (Original) An apparatus as claimed in claim 20 wherein the indication is a value which indicates that the message data was involved in the immediately preceding request from the application.

22. (Original) An apparatus as claimed in claim 21 wherein the indication is a token which uniquely identifies the message data within the scope of the application.

23. (Original) An apparatus as claimed in claim 19 further comprising:
means for receiving a request from the application to get a message from the queue; and

means for storing a reference, separate from the log and associated with the application, for locating a previous occurrence of the message data in the log.

24. (Original) An apparatus as claimed in claim 19 further comprising:

means responsive to failing to detect a previous occurrence of the message data in the log for storing a reference, separate from the log and associated with the message, for subsequently locating the message data in the log.

25. (Original) A data processing apparatus comprising:

means for receiving a request from an application to put a message, comprising message data, to a queue; and

means for deducing, based on an indicator included with the request, that the message data was previously put to a message queue or got from a message queue by the application.

26. (Original) A data processing apparatus as claimed in claim 25 wherein the indicator is a value which indicates that the message data was involved in the immediately preceding request from the application.

27. (Original) A data processing apparatus as claimed in of claim 25 wherein the indicator is a token which uniquely identifies the message data within the scope of the application.

REMARKS

Claims 1-27 are pending in the present application. Claims 1, 7, 10, and 19 were amended. Reconsideration of the claims is respectfully requested.

I. Examiner Interview

Applicant thanks Examiner Van Nguyen for the courtesies extended Applicant's representative during the September 20, 2005 telephone interview. During the interview, Examiner Nguyen agreed that the above amendment to independent claims 1, 10, and 19 would overcome the rejection of claims 1, 10, and 19 under 35 U.S.C. 103. In addition, the Examiner indicated that the amendment to claim 1 and 10 would overcome the rejection of claims 1 and 10 under 35 U.S.C. 112. The Examiner also indicated that the above amendment to claims 1 and 7 would overcome the rejection of the claims under 35 U.S.C. 101. The reasons discussed as well as additional reasons that the claims are allowable are set forth in the remarks below.

II. 35 U.S.C. § 101: Claims 1-9

The examiner has rejected claims 1-9 under 35 U.S.C. § 101 as being directed towards non-statutory subject matter. This rejection is respectfully traversed.

The examiner states on page 3 of the Office Action dated June 29, 2005 that:

The language of claims 1-9 raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a useful, concrete, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101,

As to claims 1-9, the claims read on a mental process or the manipulation of an abstract idea. The claim limitations are not explicitly directed toward steps being implemented on a computer, computer readable medium, or other statutory device. As such, they could be carried out mentally in conjunction with pen/pencil and paper. The claimed steps do not define a machine or computer implemented process (see MPEP 2106). Therefore, the claimed invention is directed to non-statutory subject matter.

Office Action dated June 29, 2005, page 3.

Independent claims 1 and 7 have been amended to more clearly set forth the structural limitations needed to bring it within 35 U.S.C. § 101. Amended independent claims 1 and 7 now recite a "computer implemented method," in accordance with the Examiner's comments during the interview on September 20, 2005. For example, independent claim 1 now recites as follows:

1. A computer implemented method for recording message activity in a log, the method comprising the steps of:
receiving a request from an application to put a message, comprising message data, to a queue; and
detecting whether there is a previous occurrence of the message data in the log, and if there is not a previous occurrence writing a log record including the message data, but if there is a previous occurrence writing a log record including a reference for locating the previous occurrence of the message data in the log.

Thus, independent claims 1 and 7 are directed to statutory subject matter and the rejection of claims 1 and 7 under 35 U.S.C. 101 has been overcome.

Also, since claims 2-8 and 8-9 depend from claims 1 and 7, the same distinctions for the claimed invention in claims 1 and 7 hold true for claims 2-8, and 8-9 and the rejection of these claims under 35 U.S.C. § 101 has also been overcome. Therefore Applicant respectfully requests withdrawal of the rejection of claims 1-9 under 35 U.S.C. § 101.

III. 35 U.S.C. § 112, Second Paragraph: Claims 1-6 and 10-15

The examiner has rejected claims 1-6 and 10-15 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter, which applicants regard as the invention. This rejection is respectfully traversed.

Regarding independent claim 1, the Examiner alleges that the term "the log" in claim 1 lacks antecedent basis. However, the preamble of independent claim 1 recites a "method for recording message activity in a log." Independent claim 1 recites:

1. A method for recording message activity in a log, the method comprising the steps of:
receiving a request from an application to put a message, comprising message data, to a queue; and
detecting whether there is a previous occurrence of the message data in the log, and if there is not a previous occurrence writing a log record including the message data, but if there is a previous occurrence writing a log record including a reference for locating the previous occurrence of the message data in the log, wherein the reference for locating the previous occurrence of the message data in the log enables the position of the log record containing the message data to be obtained.

As shown above, there is proper antecedent basis for the claim limitation "detecting whether there is a previous occurrence of the message data in the log," recited in claim 1 where the preamble recites "activity in a log."

Regarding independent claim 10, claim 10 previously recited "detecting whether there is a previous occurrence of the message data in the log." Claim 10 has been amended to claim "detecting whether there is a previous occurrence of the message data in a log." Amended claim 10 now claims as follows:

10. A computer program product, recorded on a medium, comprising instructions which, when executed on a data processing host, causes said host to carry out a method comprising the steps:
 - receiving a request from an application to put a message, comprising message data, to a queue; and
 - detecting whether there is a previous occurrence of the message data in a log, and if there is not a previous occurrence, writing a log record including the message data, but if there is a previous occurrence writing a log record including a reference for locating the previous occurrence of the message data in the log.

Amended independent claim 10 now recites proper antecedent basis for all claim limitations. Therefore, the rejection under 35 U.S.C. 112 has been overcome regarding independent claims 1 and 10. Dependent claims 2-5 and 11-15 are rejected for fully incorporating the deficiencies of their base claim. Thus, the rejection of dependent claims 2-5 and 11-15 has now also been overcome.

Therefore the rejection of claims 1-6 and 10-15 under 35 U.S.C. § 112, second paragraph has been overcome.

IV. 35 U.S.C. § 102, Anticipation: Claims 7, 8, 16, 17, 25, and 26

The examiner has rejected claims 7, 8, 16, 17, 25, and 26 under 35 U.S.C. § 102 as being anticipated by Admitted Prior Art (hereinafter "APA"). This rejection is respectfully traversed.

The examiner states on page 4 of the Office Action dated June 29, 2005 that:

- As to claim 7, APA teaches the invention as claimed including a method for detecting the re-use of message data comprising the steps:
 - receiving a request from an application to put a message, comprising message data, to a queue (page 1, lines 20-30); and
 - detecting, based on an indicator included with the request, that the message data was previously put to a message queue or got from a message queue by the application (page 2, lines 26-30).

As to claim 8, APA teaches the indicator is a value which indicates that the message data was involved in the immediately preceding request from the application (page 2, lines 26-30).

As to claims 16 and 17, note the rejection of claims 7 and 8 above. Claims 16 and 17 are the same as claims 7 and 8, except claims 16 and 17 are computer program product claims and claims 7 and 8 are method claims.

Office Action dated June 29, 2005, page 4.

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. In re Bond, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). All limitations of the claimed invention must be considered when determining patentability. In re Lowry, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). Anticipation focuses on whether a claim reads on the product or process a prior art reference discloses, not on what the reference broadly teaches. Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983). Not all of the features of the presently claimed invention are shown in the cited reference.

Amended independent claim 7, which is representative of other rejected independent claims 16 and 25 with respect to similarly recited subject matter, recites as follows:

7. A computer implemented method for detecting the re-use of message data comprising the steps:
receiving a request from an application to put a message, comprising message data, to a queue; and
detecting, based on an indicator included with the request, that the message data was previously put to a message queue or got from a message queue by the application.

The APA does not teach "detecting, based on an indicator included with the request, that the message data was previously put to a message queue or got from a message queue by the application," as is claimed in independent claims 7, 16, and 25. The Examiner believes this feature is taught by the APA at page 2, lines 26-30 which teaches as follows:

One key aspect of providing such transactional capabilities is the maintenance of a log in each system. The log, which may comprise one or more files, is used to keep a track of completed message activity in the system. Each time a message is sent to a queue a record that the message was sent, including the message data, is

written to the log, and each time a message is retrieved from a queue a record that the message was retrieved is written to the log. Each of these writes to the log are forced to disk (although some may be combined to a single force) because in the event of a failure the log is used to recover each queue to the state it was in at the point when the failure occurred. Such a failure could be, for example, due to a power loss causing immediate termination of the system. As a result, in order to provide such capabilities as once and once only delivery of messages, recovery cannot tolerate a log record being lost because, for example, it was buffered by the operating system at the point of failure.

APA page 2, line 22-page 3, line 10.

As shown above, the APA merely teaches that in prior art messaging systems, each time a message is sent to a message queue or retrieved from a message queue, a record is written to a log to keep track of completed message activity in the system. The APA teaches that when a message is sent to a queue, the log record includes the message data. These writes to the log are forced to disk to preserve the log in case of power failure which could result in the loss of message data. The APA also teaches:

Unfortunately however, forcing a log write to disk is a relatively slow operation and can have a significant impact on the performance of message delivery and retrieval. Further forcing a log write can be slower for larger writes and specifically when writing records relating to message sends which include the message data which is potentially large.

APA page 3, lines 11-18.

Although the APA may teach writing a log record including message data to a log each time a message is sent to a queue and writing a log record each time a message is retrieved from a queue, this cited art does not teach "an indicator included with the request" to put a message, as is recited in claim 7. Nor does the cited art teach or disclose that an indicator indicates "the message data was previously put to a message queue or got from a message queue by the application," as is recited in claim 7. In fact, there is nothing in the APA that even mentions detecting that a message data was previously put to a message queue or got from a message queue by an application based on an indicator of any type.

Moreover, the indicator claimed in claim 7 is included in a put message request. The APA fails to teach or disclose anything regarding an indicator included in a put message request. As discussed above, the cited portion of the APA merely teaches writing a record to a log each time a record is sent. The APA teaches the log record records that the message was sent and

includes message data. However, the indicator of claim 7 is "included with the request" to put a message, rather than included in a log record. Furthermore, the log record described in the APA does not indicate that message data in a request from an application to put that message to a message queue was previously put to a message queue or got from a message queue by the application, as is claimed in claim 7. Thus, the teachings of the APA are insufficient to disclose an indicator as is recited in independent claim 7.

Independent claims 16 and 25 recite subject matter addressed above with regard to claim 7. Thus, claims 16 and 25 are allowable over the prior art of reference under the same rationale presented above with regard to claim 7. In addition, at least by virtue of their dependency on claims 7, 16, and 25, dependent claims 8, 17, and 26 are distinguishable over the prior art of reference. Furthermore, claims 8, 17, and 26 recite additional combinations of features not taught or suggested by the prior art.

For example, claim 8, which is representative of other rejected dependent claims 17 and 26 with regard to similarly recited subject matter, recites as follows:

8. A method as claimed in claim 7 wherein the indicator is a value which indicates that the message data was involved in the immediately preceding request from the application.

The Examiner believes this feature is disclosed by the APA at page 2, lines 26-30, which is quoted above. As discussed above, the APA merely teaches writing a record to a log recording that a message was sent to a queue, including message data, and writing a record that a message was retrieved from a queue. As discussed above with regard to claim 7, the APA does not teach or disclose an indicator included in a request from an application to put a message. Nor does it teach that the indicator is a value which indicates that the message was involved in the immediately preceding request from the application. In fact, the cited portion of the APA fails to even mention a request from an application, let alone indicating that a message was involved in the immediately preceding request from the application, as is claimed in claims 8, 17, and 26. Thus, the APA does not teach or disclose "the indicator is a value which indicates that the message data was involved in the immediately preceding request from the application," as is claimed in dependent claims 8, 17, and 26. Therefore, the rejection of claims 7, 8, 16, 17, 25, and 26 under 35 U.S.C. § 102 has been overcome.

Furthermore, the APA does not teach, suggest, or give any incentive to make the needed changes to reach the presently claimed invention. The APA actually teaches away from the presently claimed invention because it teaches writing message data to a log record each time a message is put to a queue or retrieved from a message queue as opposed to detecting, based on an indicator included with a request to put a message to a queue, whether the message data was previously put to a message queue or got from a message queue by the application, as in the presently claimed invention. Absent the examiner pointing out some teaching or incentive to implement the APA and detecting whether a message data was previously put to a message queue or got from a message queue based on an indicator included with a request to put the message data to a queue, one of ordinary skill in the art would not be led to modify the APA to reach the present invention when the reference is examined as a whole. Absent some teaching, suggestion, or incentive to modify the APA in this manner, the presently claimed invention can be reached only through an improper use of hindsight using the applicants' disclosure as a template to make the necessary changes to reach the claimed invention.

V. 35 U.S.C. § 103, Obviousness: Claims 1-6, 9-15, 18-24, and 27

The examiner has rejected claims 1-6, 9-15, 18-24, and 27 under 35 U.S.C. § 103(a) as being unpatentable over APA in view of Piskiel et al. (U.S. Patent No. 5,916,307) (hereinafter "Piskiel"). This rejection is respectfully traversed.

The examiner states on pages 5-6 of the Office Action dated June 29, 2005 that:

As to claim 1, the rejection of claim 7 above is incorporated herein in full. APA, however, does not specifically teach detecting whether there is a previous occurrence of the message data in the log, and if there is not a previous occurrence writing a log record including the message data, but if there is a previous occurrence writing a log record including a reference for locating the previous occurrence of the message data in the log.

Piskiel teaches detecting whether there is a previous occurrence of the message data in the log, and if there is not a previous occurrence writing a log record including the message data, but if there is a previous occurrence writing a log record including a reference for locating the previous occurrence of the message data in the log (col.9, line 42-col.10, line 18).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Piskiel with APA because Piskiel's teachings would have provided the capability for preventing duplicative processing of retry message transmissions

received at the receiving node while minimizing the overhead processing required to detect such a retransmission and permitting receipt and queuing of a message within the receiving node with reduced overhead processing as compared to prior solutions utilizing more complex communication protocols and reconciliation procedures

Office Action dated June 29, 2005, pages 5-6.

During the interview with the Examiner on September 20, 2005, the Examiner agreed that the above amendments to independent claims 1, 10, and 29 overcome the rejection to the claims under 35 U.S.C. 103. The arguments discussed as well as additional reasons the claims are allowable over the prior art of reference are discussed below.

1. All claim limitations must be considered, especially when missing from the prior art.

In comparing the prior art references to the claimed invention, the claim limitations of the presently claimed invention may not be ignored in an obviousness determination. Amended independent claim 1, which is representative of other rejected independent claims 10 and 19 with respect to similarly recited subject matter, recites as follows:

1. A computer implemented method for recording message activity in a log, the method comprising the steps of:
 - receiving a request from an application to put a message, comprising message data, to a queue; and
 - detecting whether there is a previous occurrence of the message data in the log, and if there is not a previous occurrence writing a log record including the message data, but if there is a previous occurrence writing a log record including a reference for locating the previous occurrence of the message data in the log, wherein the reference for locating the previous occurrence of the message data in the log enables the position of the log record containing the message data to be obtained.

Piskiel and the **APA**, either alone or in combination, fail to teach or suggest "detecting whether there is a previous occurrence of the message data in the log, and if there is not a previous occurrence writing a log record including the message data, but if there is a previous occurrence writing a log record including a reference for locating the previous occurrence of the message data in the log," as is claimed in amended claim 1. The Examiner acknowledges that the **APA** fails to teach or disclose this feature. However, the Examiner believes "detecting

whether there is a previous occurrence of the message data in the log, and if there is not a previous occurrence writing a log record including the message data, but if there is a previous occurrence writing a log record including a reference for locating the previous occurrence of the message data in the log," is taught by Piskiel at column 9, line 42-column 10, line 18, which teaches as follows:

Prior solutions provided complex communication protocols and application level reconciliation procedures to assure that a retry transmission (potentially received as a duplicate message at the receiving node) would not be reprocessed such that the information content could be confused as actually generated and transmitted a plurality of times by the originating node. As discussed in detail below, the present invention solves this problem through use of the balanced queue structures and associated management methods. A message is stored in sending queue 214 at the next available location (indicated by the refno or QRN of the location in the sending queue 214). When a message is retrieved and transmitted to the receiving node, the refno of the location of the message in the sending queue 214 is added to the message and transmitted with the message. The message is placed in the balanced receiving queue 234 in the receiving node's 220 application database 232 at the same relative offset location from which it was retrieved in the originating node's 200 sending queue 214. The receiving node 220 may thereby prevent the duplicate transmission of a message from being processed to produce duplicative effects. This aspect of the present invention is discussed in further detail below with respect to operation of the methods of the present invention.

A transmitted message received at the receiving node 220 by the corresponding link layer 230 is placed in the balanced receiving queue 234 by invocation of the put message balanced queue API function 224. As noted above (and discussed below in detail) the received message includes the refno value indicative of the relative offset location from which the message was retrieved in the sending queue 214 of the originating node 200. The put message balanced queue API function 224 is operable to place the received message in the identical relative offset location within the receiving queue 234 as that indicated by the received refno value. This feature of the present invention prevents duplicative processing of retry message transmissions received at the receiving node 220 while minimizing the overhead processing required to detect such a retransmission. In addition, this feature of the present invention permits receipt and queuing of a message within the receiving node with reduced overhead processing as compared to

prior solutions utilizing more complex communication protocols and reconciliation procedures.

Piskiel, Col. 9, line 42 – Col. 10, line 18.

Here, Piskiel merely teaches a balanced queue structure wherein a message in a sending queue has a reference number of the location of the message in the sending queue and transmitted with the message. The message is placed in the receiving queue at the same relative offset location from which it was retrieved in the sending queue. Piskiel teaches that if a duplicate message is sent in a retry message transmission, processing of retry messages will be minimized.

Piskiel teaches:

If the received message is a duplicate of an earlier transmission, there is no risk under the methods of the present invention that the message will be processed more than once. If the duplicate message has already been processed by the receiving node, then placing it in the same location of the receiving node does no harm and is simply ignored. The location will be overwritten by a new message when another message is transmitted from the originating node using the same index value (i.e. after the wraparound queue properly wraps).

Piskiel, column 4, line 59-column 5, line 2.

Thus, Piskiel teaches creating a queue reference location number for a message in a sending queue such that the message will be placed in the same relative location in a receiving queue to minimize processing of messages retrieved from the receiving queue that have been sent multiple times in retry transmissions. Once the message is processed, a new message transmitted to the sending queue will overwrite the location using the same index value. However, Piskiel does not teach “determining whether there is a previous occurrence of the message data in the log” and “if there is a previous occurrence writing a log record including a reference for locating the previous occurrence of the message data in the log,” as is claimed in claim 1. In fact, Piskiel does not teach writing a log record anywhere in this or any other section of the reference.

Moreover, although Piskiel teaches a queue location reference number for referencing a message location in a queue, it does not teach “writing a log record including a reference for locating the previous occurrence of the message data in the log,” as is claimed in claim 1. The queue reference number of Piskiel merely indicates a location in a sending queue and a retrieving queue. It does not provide a reference for locating “the previous occurrence of message data in the log,” as is claimed in claim 1. In fact, Piskiel does not provide any teachings or disclosures

regarding a log record or a reference in the log. Thus, the teachings of Piskiel are insufficient to make up for the deficiencies of the APA.

Furthermore, Piskiel fails to teach or disclose "the reference for locating the previous occurrence of the message in the log enables the position of the log record containing the message data to be obtained," as is now recited in amended claim 1. Furthermore, during the interview with the Examiner, Examiner *Nguyen* agreed that this new feature is not taught or suggested by the prior art of reference. Therefore, claim 1 is not obvious in view of either the APA or Piskiel, either alone or in combination, because the features believed to be disclosed by this cited reference are not present.

2. Stating that it is obvious to try or make a modification or combination without a suggestion in the prior art is not *prima facie* obviousness.

The mere fact that a prior art reference can be readily modified does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Laskowski, 871 F.2d 115, 10 U.S.P.Q.2d 1397 (Fed. Cir. 1989); see also In re Fritch, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992); In re Mills, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1993). The Examiner may not merely state that the modification or combination would have been obvious to one of ordinary skill in the art without pointing out in the prior art a suggestion of the desirability of the proposed modification.

Piskiel and the APA do not provide any teaching, suggestion, or incentive to write a log record including a reference for locating the previous occurrence of the message data in the log as in the presently claimed invention. Piskiel teaches minimizing processing of retry messages by sending a queue location reference number with the sent message indicating the location of the message in the send queue so that the message may be placed in the same relative location in a retrieve queue after transmission. Piskiel does not teach, suggest or even mention writing to a record log or including a reference for locating message data in a record log. The APA teaches writing a record in a log recording that a message is sent, including the message data. However, APA does not teach, suggest or even mention writing a reference to a log record or that such a reference may be used for locating the previous occurrence of message data in the log. In fact, nowhere does Piskiel and the APA teach, suggest, or give any incentive to write a reference to a

log for locating the previous occurrence of a message data in the log to enable the position of the log record containing the message data to be obtained, as is now claimed in amended claim 1.

Furthermore, the prior art does not teach the problem or its source. The present invention in claim 1 is directed towards recording message activity in a log record, wherein a reference for locating the previous occurrence of the message data in the log is included in the log record. **Piskiel** and the **APA** do not teach the problem or its source. Instead, **Piskiel** is directed towards minimizing processing of retry messages. **Piskiel** solves the problem by providing a balanced queue messaging system and sending a queue reference indicating a location in a send queue for a message entry. This index value is used by a receiving node to place the message in the same relative location in the receive queue. **Piskiel** provides a complete solution to the problem of minimizing processing of retry messages. Furthermore, the **APA** merely describes the prior art and is not directed towards teaching a solution to any specific problem. Thus, neither **Piskiel** nor the **APA** teaches or suggests a reference in a record log or a reference for locating a previous occurrence of a message data in a log for recording message activity, as in the presently claimed invention in claim 1. Therefore, one of ordinary skill in the art would not be motivated to combine or modify the references in the manner required to form the solution disclosed in the claimed invention.

Even if the references could be properly combined, the combination of the references would not form the presently claimed invention. The present invention is directed towards recording message activity in a log record. Even if **Piskiel** and the **APA** could be properly combined, a combination of the references would not form the presently claimed invention in claim 1. Instead, a combination of **Piskiel** and the **APA** would result in indicating the location of a message in the sent queue when sending a message and recording in a record log that the message data and a record that the message was sent.

The presently claimed invention may only be reached through an improper use of the disclosed invention as a template to piece together and modify the prior art. The Examiner may not use the claimed invention as an "instruction manual" or "template" to piece together the teachings of the prior art so that the invention is rendered obvious. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). Such reliance is an impermissible use of hindsight with the benefit of applicant's disclosure. *Id.* Therefore, absent some teaching, suggestion, or incentive

in the prior art, Piskiel and the APA cannot be properly combined to form the claimed invention. As a result, absent any teaching, suggestion or incentive from the prior art to make the proposed combination, the presently claimed invention can be reached only through an impermissible use of hindsight with the benefit of applicant's disclosure a model for the needed changes. Thus, amended independent claim 1 is allowable over the prior art of reference.

3. Claims 2-6, 9-15, 18-24, and 27

Independent claims 10 and 19 recite subject matter addressed above with regard to claim 1 and are allowable over the prior art of record under the same rationale presented above with regard to claim 1. Furthermore, at least by virtue of their dependency, the cited references do not teach the features claimed in dependent claims 2-6, 9, 11-15, 18, 20-24, and 27 which depend from independent claims 1, 10, and 19. Thus, dependent claims 2-6, 9, 11-15, 18, 20-24, and 27 are allowable over the prior art of reference at least for the reasons set forth above with regard to claims 1, 10, and 19. Moreover, dependent claims 2-6, 11-15, and 20-24 recite additional combinations of features not taught or suggested by the prior art of reference.

For example, claims 2, 11, and 20 claim "the request to put a message includes an indication that the message data was put to a message queue or got from a message queue in a previous request from the application." The Examiner alleges this feature is taught by the APA at page 2, lines 26-30, which is quoted above. As discussed above with regard to claim 7, the APA merely teaches that each time a message is sent to a queue a record is written to a log that the message was sent and including the message data. Each time a message is retrieved from a queue, a record that the message was retrieved is written to the log. However, such teachings are insufficient to teach or suggest "the request to put a message includes an indication that the message data was put to a message queue or got from a message queue in a previous request from an application," as is recited in claims 2, 11, and 20. The cited portion of the APA does not teach or even mention a put message request or that an indication is included in the request. Thus, the prior art fails to teach or disclose the features recited in dependent claims 2, 11, and 20.

Regarding claims 3, 12, and 21, the Examiner alleges that "the indication is a value which indicates that the message data was involved in the immediately preceding request from the application," is taught by the APA at page 2, lines 26-30, which is quoted above. As discussed above, the APA merely teaches writing a record to a log recording that a message was sent to a

queue, including message data, and writing a record that a message was retrieved from a queue. As discussed above with regard to claim 7, the APA does not teach or disclose an indicator included in a request from an application to put a message. Nor does it teach that the indicator is a value which indicates that the message was involved in the immediately preceding request from the application. In fact, the cited portion of the APA fails to even mention a request from an application, as is claimed in claims 3, 12, and 21. Thus, the APA does not teach or the features recited in dependent claims 8, 17, and 26.

Therefore, the rejection of claims 1-6, 9-15, 18-24, and 27 under 35 U.S.C. § 103(a) has been overcome.

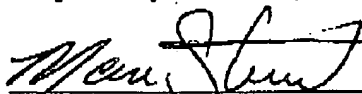
VI. Conclusion

It is respectfully urged that the subject application is patentable over the cited references and is now in condition for allowance.

The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

DATE: November 3, 2005

Respectfully submitted,



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10087,963	02/27/2002	Andrew J. Hickson	GB920010041US1	5361

7590

10/20/2005

Jeffrey S. LaBaw
 IBM Corp, IP Law,
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 Austin, TX 78758

EXAMINER

NGUYEN, VAN H

ART UNIT

PAYER NUMBER

2194

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

BEST AVAILABLE COPY

CLIENT DOCKET INFORMATION

Client Name: GB 9200 10041 US1

File No.

DATE

ACTION DOCKETED

11/26/05 10:30:00 AM Notice
 of Non-Compliance
 (Amended)

Docketed By: TMO

Date: 10.31.05

Checked By: TMO

Date: 10.31.05

Attorney Initials: J

Date: 11.2

**Notice of Non-Compliant
Amendment (37 CFR 1.121)**

Application No.

10/087983

Examiner

Van Nguyen

Applicant(s)

Art Unit

2104

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

The amendment document filed on 22 September 2005 is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121. In order for the amendment document to be compliant, correction of the following item(s) is required.

THE FOLLOWING MARKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

☐ 1. Amendments to the specification:

- ☐ A. Amended paragraph(s) do not include markings.
☐ B. New paragraph(s) should not be underlined.
☐ C. Other _____

☐ 2. Abstract:

- ☐ A. Not presented on a separate sheet. 37 CFR 1.72.
☐ B. Other _____

☐ 3. Amendments to the drawings:

- ☐ A. The drawings are not properly identified in the top margin as "Replacement Sheet," "New Sheet," or "Annotated Sheet" as required by 37 CFR 1.121(d).
☐ B. The practice of submitting proposed drawing correction has been eliminated. Replacement drawings showing amended figures, without markings, in compliance with 37 CFR 1.84 are required.
☐ C. Other _____

☒ 4. Amendments to the claims:

- ☐ A. A complete listing of all of the claims is not present.
☒ B. The listing of claims does not include the text of all pending claims (including withdrawn claims).
☐ C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Canceled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-currently amended).
☐ D. The claims of this amendment paper have not been presented in ascending numerical order.
☒ E. Other: Claims 26 and 27 does not have all the text present. (claim dependency is missing).

For further explanation of the amendment format required by 37 CFR 1.121, see MPEP § 714 and the USPTO website at <http://www.uspto.gov/web/offices/pac/dapp/opla/preopnotice/officefiver.pdf>.

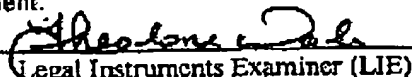
TIME PERIODS FOR FILING A REPLY TO THIS NOTICE:

1. Applicant is given no new time period if the non-compliant amendment is an after-final amendment or an amendment filed after allowance. If applicant wishes to resubmit the non-compliant after-final amendment with corrections, the entire corrected amendment must be resubmitted within the time period set forth in the final Office action.
2. Applicant is given one month, or thirty (30) days, whichever is longer, from the mail date of this notice to supply the corrected section of the non-compliant amendment in compliance with 37 CFR 1.121, if the non-compliant amendment is one of the following: a preliminary amendment, a non-final amendment (including a submission for a request for continued examination (RCE) under 37 CFR 1.114), a supplemental amendment filed within a suspension period under 37 CFR 1.103(a) or (c), and an amendment filed in response to a Quayle action.

Extensions of time are available under 37 CFR 1.136(a) only if the non-compliant amendment is a non-final amendment or an amendment filed in response to a Quayle action.

Failure to timely respond to this notice will result in:

- Abandonment** of the application if the non-compliant amendment is a non-final amendment or an amendment filed in response to a Quayle action; or
Non-entry of the amendment if the non-compliant amendment is a preliminary amendment or supplemental amendment.


Legal Instruments Examiner (LIE)

571-272-3576
Telephone No.